

Application No. 10/053,675
Art Unit: 3723

Attorney Docket No. 21054.00
Confirmation No. 8412

IN THE CLAIMS:

1 Claim 1. (*Currently Amended*) A sliding hammer oil seal remover for pulling an oil seal seated in a housing
2 comprising:

3 a cylindrical rod having a central axis and a length defined between two ends;

4 having one of said two ends defining a seal engaging end and another one of said two ends defining
5 a handle end;

6 a cylindrical hammer having an axial bore of such dimension as to slide on said cylindrical rod
7 said cylindrical hammer being slidably mounted on said cylindrical rod and being spaced from said
8 seal engaging end;

9 a cylindrical impact collar fixedly, and coaxially mounted on said cylindrical rod near along the
10 length thereof, and between said seal engaging end and said handle end, and coaxial therewith and so said
11 impact collar configured as to receive impacts from said cylindrical hammer upon sliding said hammer along
12 said rod in a direction toward said handle end;

13 said seal engaging end having a flared portion connected with and flaring outward from said rod;
14 said flared portion having a flared end; and a seal engaging lip extending from said flared end
15 perpendicular to said flared portion and generally at a right angle to said rod axis;

16 whereby said handle end is graspable so as to manipulate said seal engaging end is to be inserted
17 into the an opening of an oil seal, moved laterally, and pulled outward such that said seal engaging lip

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18 engages ~~the~~ an inner surface of the oil seal; and ~~whereby upon engagement of said seal engaging lip with~~
19 the inner surface of the oil seal, said ~~sliding~~ hammer is slid along said cylindrical rod in a direction away from
20 said seal engaging end ~~so as to impact~~ impacting said impact collar with sufficient repetitive force ~~so as to~~
21 unseat ~~said the~~ oil seal from ~~its~~ an oil seal housing, and thus allows ~~pulling force to remove~~ removing the
22 seal.

1 Claim 2. (Original) The seal remover of claim 1, wherein said flared portion of said seal engaging end
2 tapers from said cylindrical rod into a generally flattened concave configuration having an upper surface and
3 a lower surface between said rod and said flared portion end.

1 Claim 3. (Original) The seal remover of claim 2, wherein seal engaging lip has a concave upper surface
2 extending downward and perpendicular to said concave flared portion end and a corresponding convex
3 lower free end surface at its lower end.

1 Claim 4. (Original) The seal remover of claim 3, wherein said seal engaging lip is flat in an axial direction.

1 Claim 5. (Original) The seal remover of claim 4, wherein said flare portion end is square relative to said
2 rod axis.

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1 Claim 6. (Original) The seal remover of claim 1, wherein said handle end of said rod forms a handle for
2 grasping said seal remover.

1 Claim 7. (New) A removal tool for removing oil seals comprising:

2 a rod member having a first end and a second end, a longitudinal axis defining a length between said
3 first end and said second end;

4 said first end having a flared portion along the longitudinal axis, and a lip;

5 said second end defining a handle;

6 a collar concentrically fixed about said rod between said first end and said second end, such that
7 a distance from said first end to said collar is greater than a distance from said collar to said second end;
8 and

9 an impact member slidably disposed on said rod between said first end and said collar;

10 wherein said handle is graspable to maneuver said lip into contact with a seated seal, said impact
11 member is forcibly slid into contact with said collar so as to unseat the seal with said lip.

1 Claim 8. (New) The removal tool according to claim 7, said flared portion further comprising a generally
2 flattened concave configuration having an upper surface and a lower surface.

1 Claim 9. (New) The removal tool according to claim 7, wherein said lip is flat in an axial direction.